

November 1, 2017

Testimony for proposed rulemaking as per Senate Bill 299 as passed by MT Legislature, Richard Iversen, 13749, CR332, Culbertson, Mt. 59218

Montana BOGC hearing at the Sidney Event Center, November 1, 2017 (6-8 PM)

1. Director of NE Montana Land and Mineral Owners Association, Board member of Dry Redwater Regional Water Authority and a Farmer/Rancher in Richland County, Mt. Today I am testifying as a private citizen.
2. List of chemicals used in Fracturing (Hydraulic Fracturing):
  - a. **A List should be made available prior to drilling of all chemicals to be used in a particular oil or gas well.** If the list changes during or after drilling, then a modification should be submitted by the Oil Company to MT BOGC.
    - i. Water testing needs to be done prior to drilling and fracturing. By testing prior to drilling, if damage to water table occurs, then it is easier to determine if done by drilling or fracturing.
    - ii. Exact formula of these chemicals used in fracturing is not needed unless by combining these chemicals it changes the nature of possible damages to ground water. Example would be sodium – chloride making salt.
3. Most fracturing in Richland County in the Bakken, involves depth exceeding 8000 feet. It is far more likely damage to ground water can occur from drilling operations. The operations in drilling that can and do occur are:
  - a. Reserve Pit lining torn, leaking etc.
  - b. Spilled chemicals on drilling pad during drilling operations
  - c. Drilling fluids leaking past the surface casing, in the normal aquifers we utilize in Richland County, i.e. less than 2000 feet.
  - d. While this hearing is for fracturing chemical disclosure, I encourage the BOGC to consider future discussions on requiring all chemicals used in drilling and fracturing a well in Montana be listed, so that early water sampling and testing can be accomplished. **I also encourage the BOGC to consider a process where nearby water aquifers and wells be tested prior to drilling of all oil and gas wells in Montana.**